

- SILTATION AND SEDIMENT CONTROL MEASURES NOTES:**

- | GRADE OF THE STREET | INTERVAL |
|---------------------|-------------|
| LESS THAN 2% | AS REQUIRED |
| 2% TO 4% | 100 FEET |
| 4% TO 10% | 50 FEET |
| OVER 10% | 25 FEET |

- | <u>GRADE OF CHANNEL</u> | <u>INTERVALS BETWEEN CHECK DAMS</u> |
|-------------------------|-------------------------------------|
| LESS THAN 3% | 100 FEET |
| 3% TO 6% | 50 FEET |
| OVER 6% | 25 FEET |

- | <u>GRADE OF STREET</u> | <u>INTERVAL</u> | <u>NO. OF BAGS HIGH</u> |
|------------------------|-----------------|-------------------------|
| LESS THAN 2% | 200' MAX. | 1 |
| 2% TO 4% | 100 FEET | 1 |
| 4% TO 6% | 50 FEET | 1 |
| 6% TO 10% | 50 FEET | 2 |
| MORE THAN 10% | 25 FEET | 2 |

13. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES: I.E., COUNTY ENGINEER, PLANNED DEV. SERVICES (PDS),

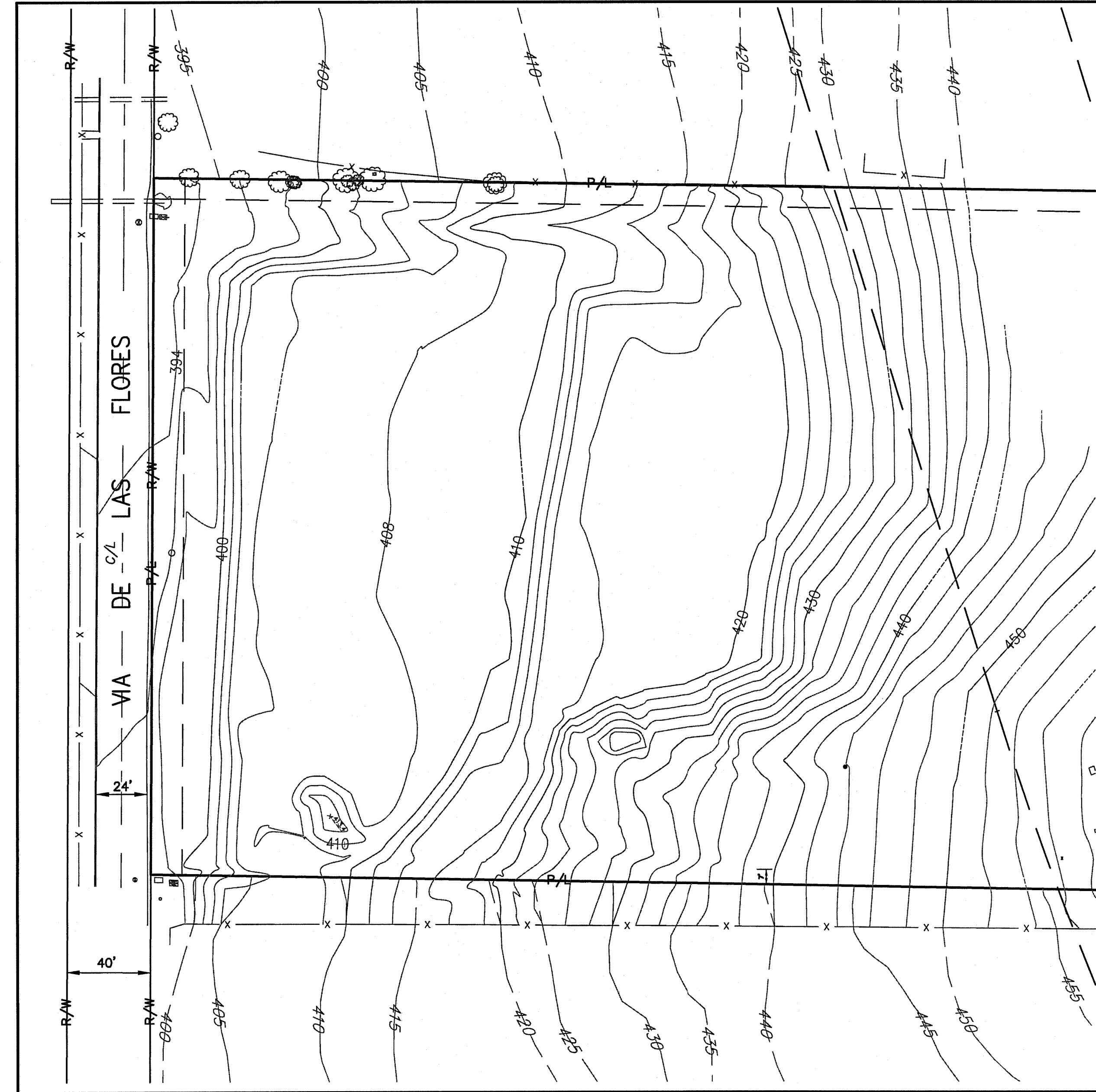
① - FOR EASEMENT DATA SEE SHEET 3

- NOTE: THIS IS A REMEDIAL GRADING PLAN ONLY
AND A SEPERATE PERMIT WILL BE REQUIRED FOR
FUTURE BUILDINGS OR ACCESS.

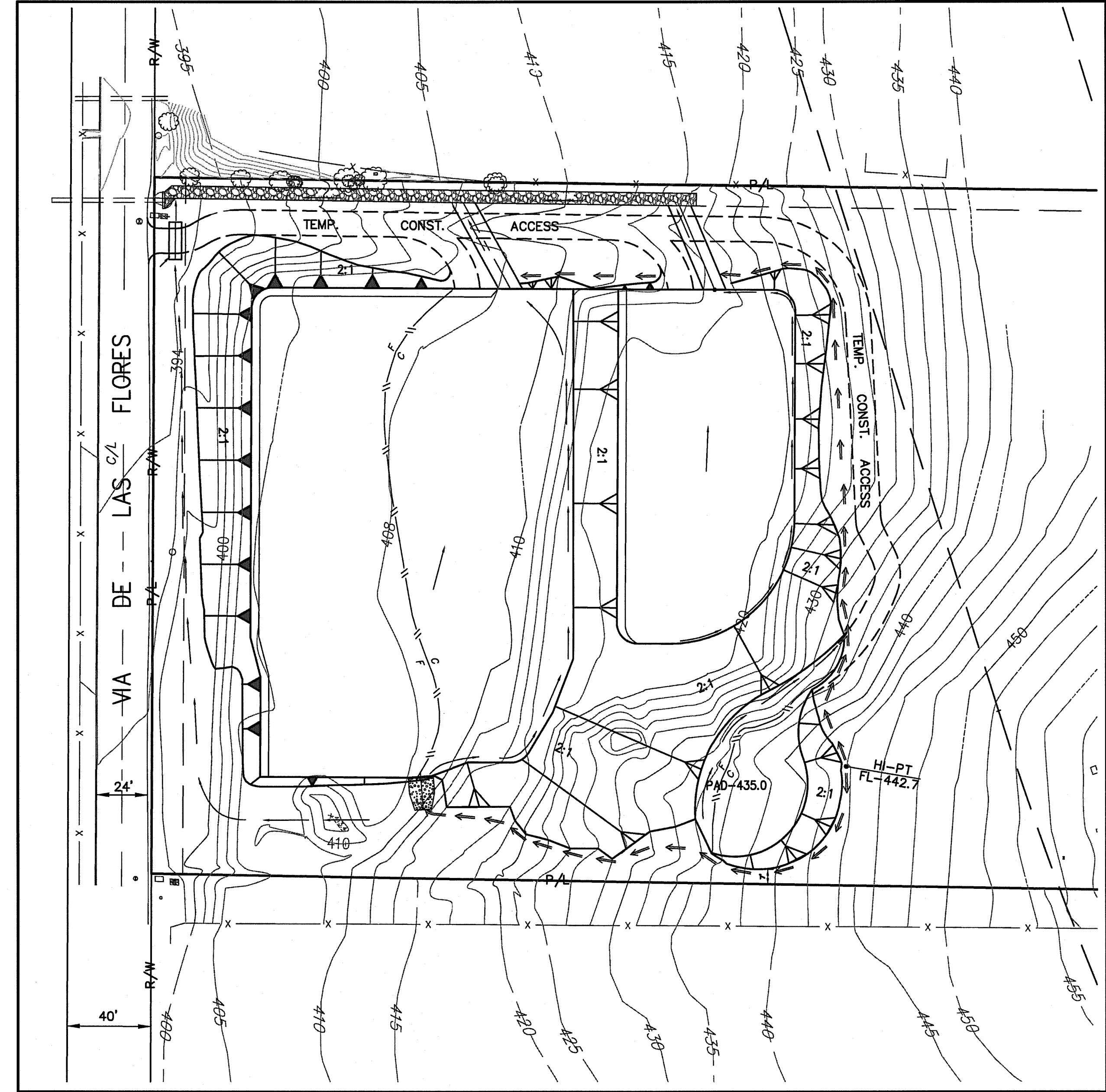
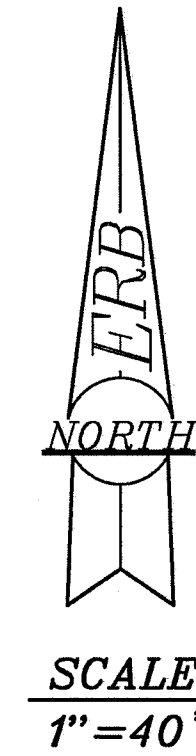
2. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS,
DOCUMENT NO. AEC0925061, FILED SEPTEMBER 25, 2006.

BMP's approved as part of Stormwater Management Plan (Minor SWMP) dated: 8/12/2014 on file with the DWP. Any changes to the above BMP's will require SWMP revision and Plan Change approvals.

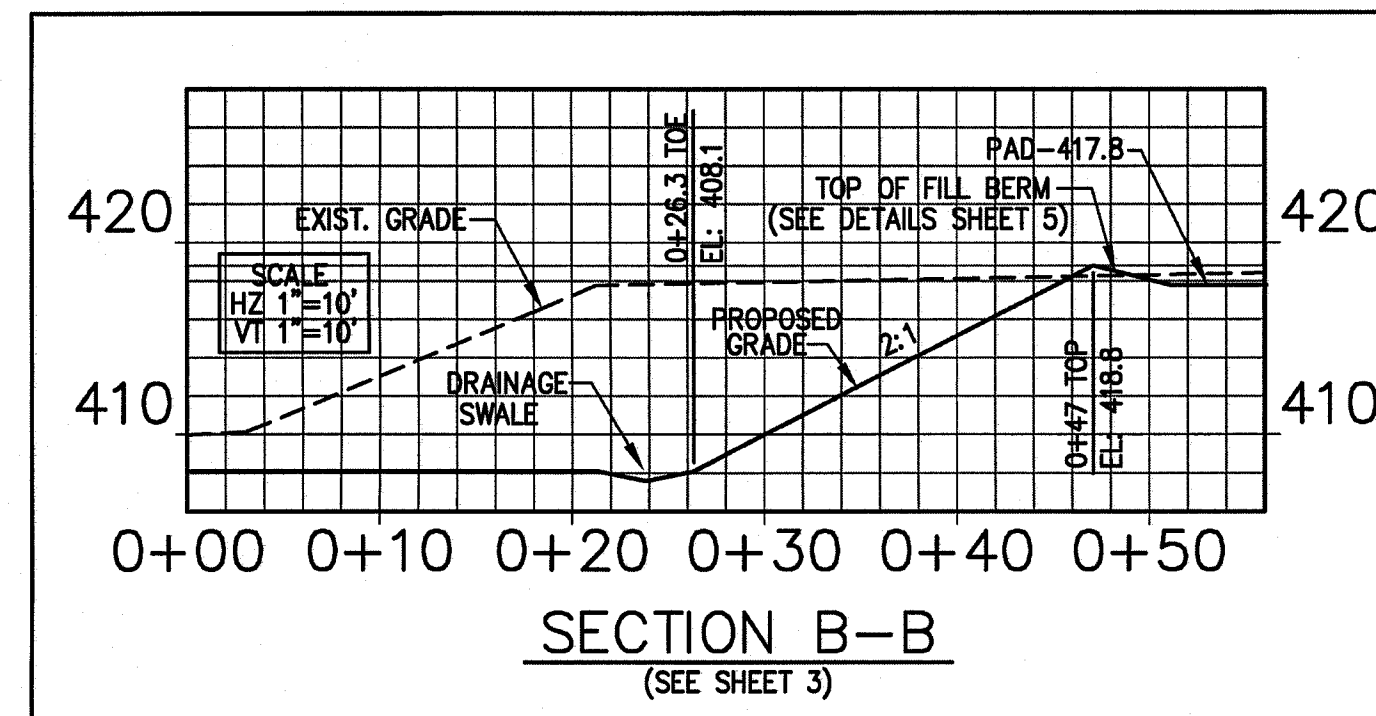
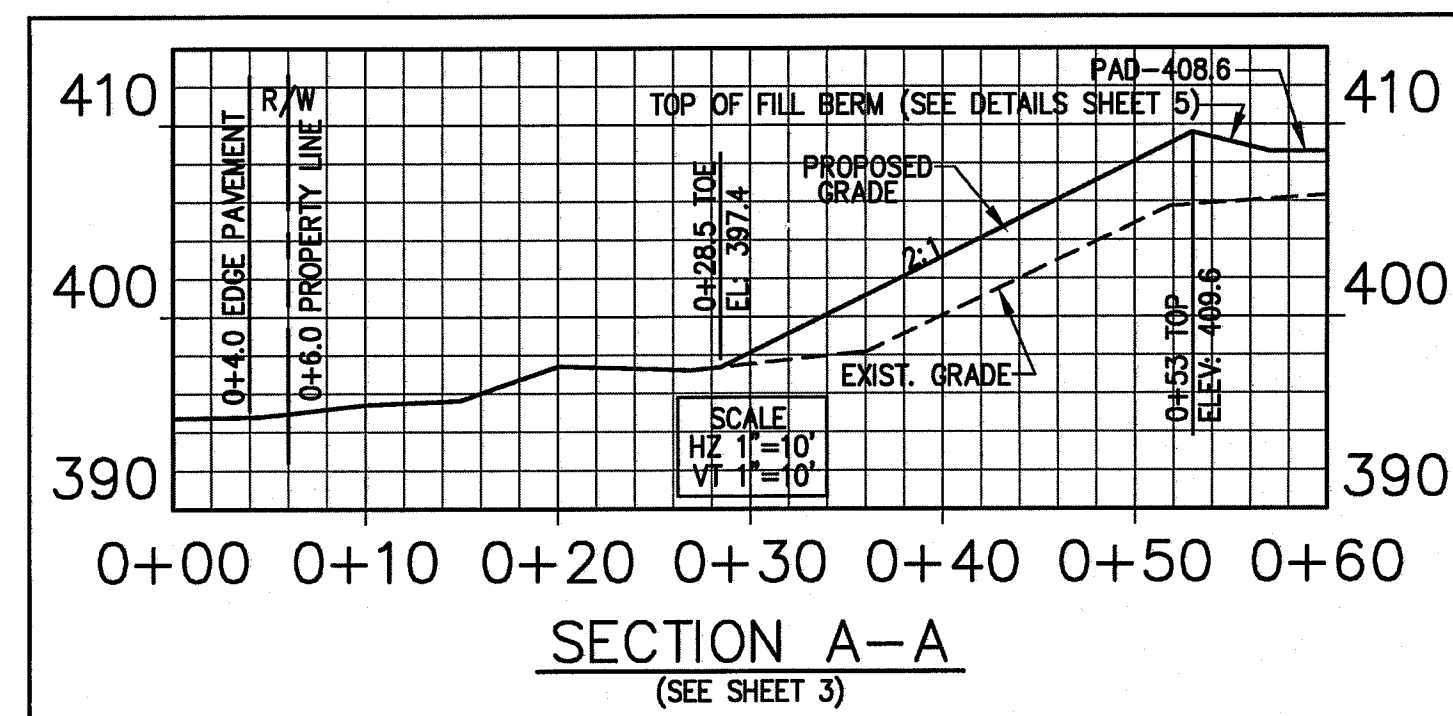
1409



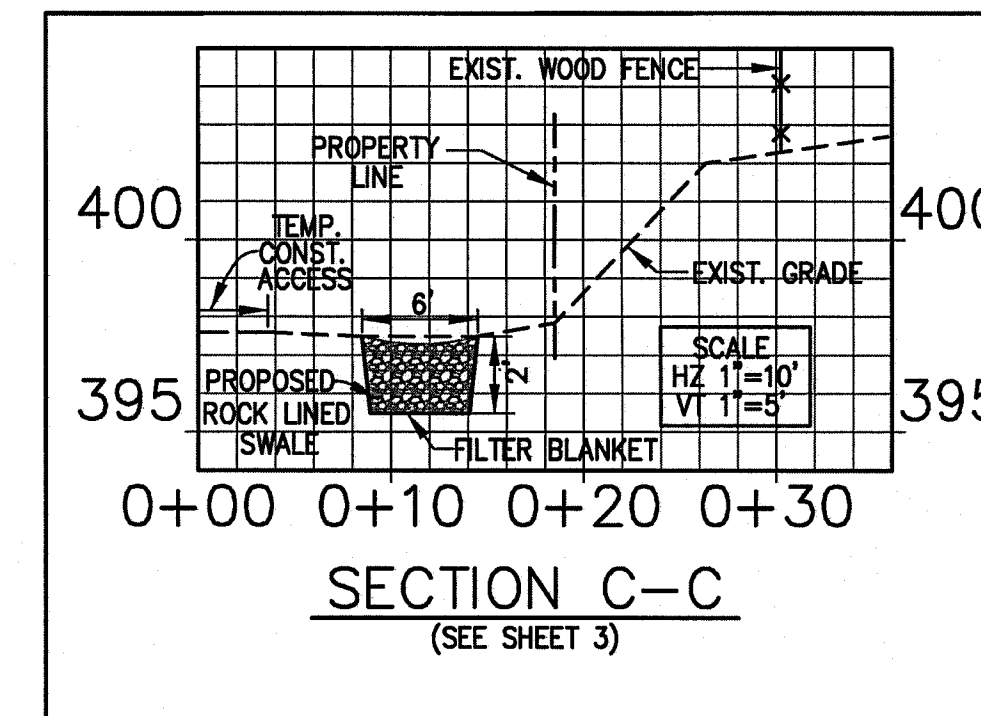
AS GRADED MAY 1, 2014



REMEDIAL GRADING
(SEE DETAILS SHEET 3)

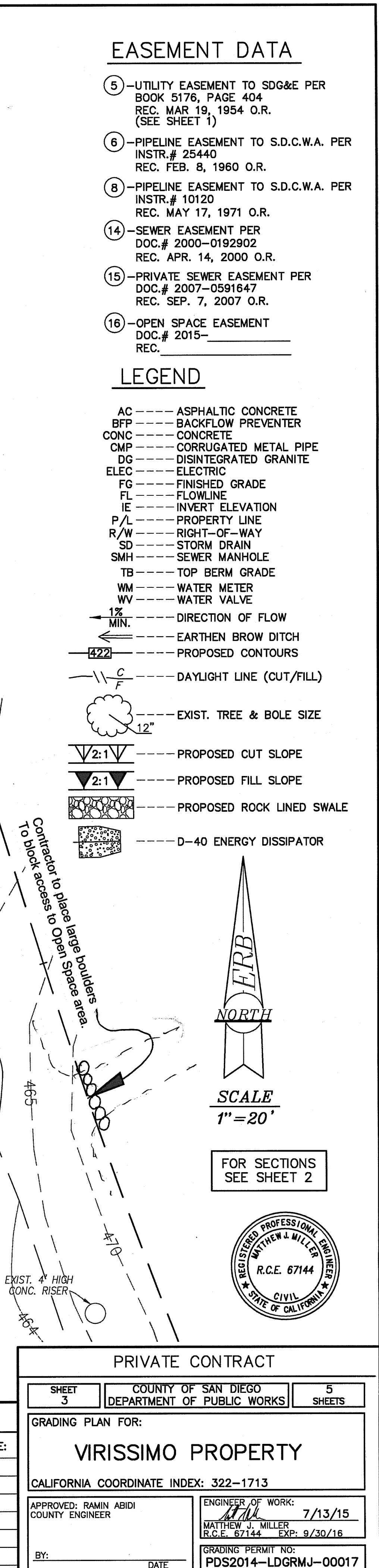


SEE SECTIONS SHEET 3



COUNTY APPROVED CHANGES			
NO.	DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT		
SHEET 2	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	5 SHEETS
GRADING PLAN FOR: VIRISSIMO PROPERTY		
CALIFORNIA COORDINATE INDEX: 322-1713		
APPROVED: RAMIN ABIDI COUNTY ENGINEER	ENGINEER OF WORK: MATTHEW J. MILLER R.C.E. 67144 EXP: 9/30/16	7/13/15
BY: _____	DATE: _____	GRADING PERMIT NO: PDS2014-LDGRMJ-00017



BEST MANAGEMENT PRACTICES:
THE FOLLOWING BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL ARE SHOWN ON THE PLAN. SOME ARE FOR SHORT TERM MITIGATION DURING THE CONSTRUCTION PROCESS AND OTHERS ARE FOR LONG TERM MITIGATION AFTER CONSTRUCTION IS COMPLETED. ALL BMP'S MUST COMPLY WITH THE COUNTY OF SAN DIEGO STORMWATER BEST MANAGEMENT PRACTICES (SEE CO. OF SAN DIEGO PUBLICATION DPLU #143).

TRAINING (SS-1):
SITE DEVELOPMENT MANAGEMENT AND PROJECT ENGINEERING PERSONNEL SHALL ENSURE THAT ALL PERSONNEL INVOLVED IN INSPECTIONS, MAINTENANCE, AND REPAIR OF BMP'S, UNDERSTAND AND ARE QUALIFIED TO PERFORM SUCH TASKS. MEETINGS SHALL BE HELD PERIODICALLY BETWEEN THE VARIOUS CONTRACTORS AND THE ON-SITE CONSTRUCTION SUPERINTENDENT TO DISCUSS POTENTIAL PROBLEMS OR EXISTING PRACTICES THAT CAN BE IMPROVED IN ORDER TO PREVENT POLLUTION DURING FUELING, CLEANING OR MAINTENANCE OPERATIONS.

EROSION AND SEDIMENT CONTROL:
LISTED BELOW ARE THE BEST MANAGEMENT PRACTICES TO BE USED FOR SOIL STABILIZATION PURPOSES. THEY ARE SHOWN IN DETAIL ON THIS SHEET. THESE BMP'S HAVE BEEN SELECTED FROM PROVEN METHODS USED FOR CONTROLLING EROSION WITHIN THE GENERAL PROJECT AREA.

SHORT TERM - CONSTRUCTION BMP'S
-GRAVEL BAGS (SC-8)
-SILT FENCES (SC-1)
-EARTHEN SWALES (SS-9)

CONTROL PRACTICES TO REDUCE THE TRACKING OF SEDIMENT ONTO PUBLIC AND PRIVATE ROADS:
TRACKING OF SEDIMENT ONTO PUBLIC AND PRIVATE ROADS SHALL BE MITIGATED BY THE CONSTRUCTION OF A TEMPORARY GRAVEL ENTRANCE /EXIT OFF THE PAVED ROAD (TC-1). THE GRAVEL ENTRANCE/EXIT SHALL BE 16' WIDE AND 50' LONG, AND SHALL CONSIST OF 2"-3" (50-75MM) COARSE AGGREGATE MIN. 6" (150MM) THICK.

CONTROL PRACTICES TO REDUCE WIND EROSION:
GRADING OPERATIONS WILL COMPLY WITH COUNTY ORDINANCES RELATING TO DUST CONTROL. ADDITIONALLY, ALL FILL MATERIAL WILL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND LANDSCAPED AS SHOWN ON THE LANDSCAPE PLAN (LANDSCAPE PLAN PROVIDED PRIOR TO GRADING PERMIT).

POST CONSTRUCTION STORM WATER MANAGEMENT:
PERMANENT BMP'S TO MITIGATE POLLUTANTS AFTER ALL CONSTRUCTION PHASES HAVE BEEN COMPLETED AT THE SITE ARE LISTED BELOW.

LONG TERM - POST CONSTRUCTION BMP'S
-PERMANENT VEGETATION AND IRRIGATION PRACTICES
-EARTHEN SWALES
-BROW DITCHES
-PERMANENT STORM DRAINS AND ATTACHED STRUCTURES

SITE MAINTENANCE, INSPECTION, AND REPAIR:
INSPECTIONS OF THE CONSTRUCTION SITE SHALL BE CONDUCTED PRIOR TO ANTICIPATED STORM EVENTS AND AFTER ACTUAL STORM EVENTS TO IDENTIFY AREAS CONTRIBUTING TO A STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY AND TO EVALUATE WHETHER MEASURES TO REDUCE POLLUTANT LOADINGS IDENTIFIED IN THE SWPPP ARE ADEQUATE AND PROPERLY IMPLEMENTED IN ACCORDANCE WITH THE TERMS OF THE PERMIT OR WHETHER ADDITIONAL CONTROL MEASURES ARE NEEDED. A RECORD OF THE INSPECTIONS MUST INCLUDE THE DATE OF THE INSPECTION, THE INDIVIDUAL(S) WHO PERFORMED THE INSPECTION, AND THE OBSERVATIONS. THE PERSONS PERFORMING THE SITE INSPECTIONS WILL DECIDE THE APPROPRIATENESS OF IMPLEMENTING THE BMP'S SHOWN ON THIS PLAN AT ANY PARTICULAR CONSTRUCTION PHASE. ADDITIONALLY, THEY WILL DETERMINE IF THE APPROPRIATE BMP'S ARE WORKING OR NEED TO BE REPAIRED, ENHANCED, OR REPLACED.

BMP LEGEND

DETAILS PER CALTRANS STORM WATER QUALITY HANDBOOK
"CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL"

----- GRVEL BAGS (SC-6)

----- SILT FENCE (SC-1)

MTLS.
DEL. &
STORAGE
PER WM-1

- MATERIALS DELIVERY
& STORAGE
(PER WM-1)

CS
CS

- CONSTR. STOCKPILE
MANAGEMENT (WM-3)

SPILL PREVENTION & CONTROL
(WM-4)

SWM

- SOLID WASTE MANAGEMENT
(WM-5)

CWM

- CONCRETE WASHOUT &
WASTE MANAGEMENT AREA
(PER WM-8)

SS

- SANITARY WASTE
MANAGEMENT (WM-9)

DESILTING BASIN
(SC-2)

STORM DRAIN INLET
PROTECTION (SC-10)

STABILIZED CONSTRUCTION
ENTRANCE (TC-1)

VEH-VEH

- VEHICLE & EQUIPMENT
MAINTENANCE (NS-10)

AREAS TO BE
HYDROSEDED
(SS-4)

INSTALL GRAVEL BAGS
(TWO LAYERS HIGH)

CWM

INSTALL STABILIZED
CONSTRUCTION ENTRANCE
(50' MIN. LENGTH)
(TC-1)

SS

SWM

VEH-VEH

CS

CS

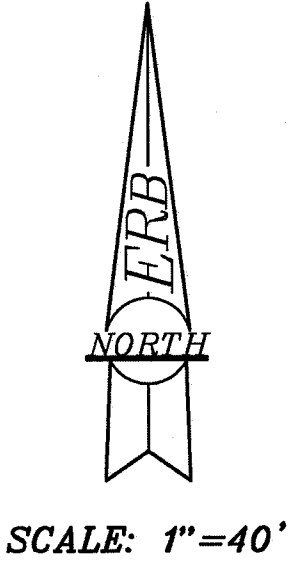
MTLS.
DEL. &
STORAGE
PER WM-1

INSTALL GRAVEL BAGS
(TWO LAYERS HIGH)

VIA DE LAS FLORES

NOTE: ALL SLOPES ARE TO BE IRRIGATED
AS NEEDED BY WATER TRUCK.

EROSION PREVENTION
AND
SEDIMENT CONTROL
(SEE SHEET 5 FOR EROSION CONTROL DETAILS)



COUNTY APPROVED CHANGES

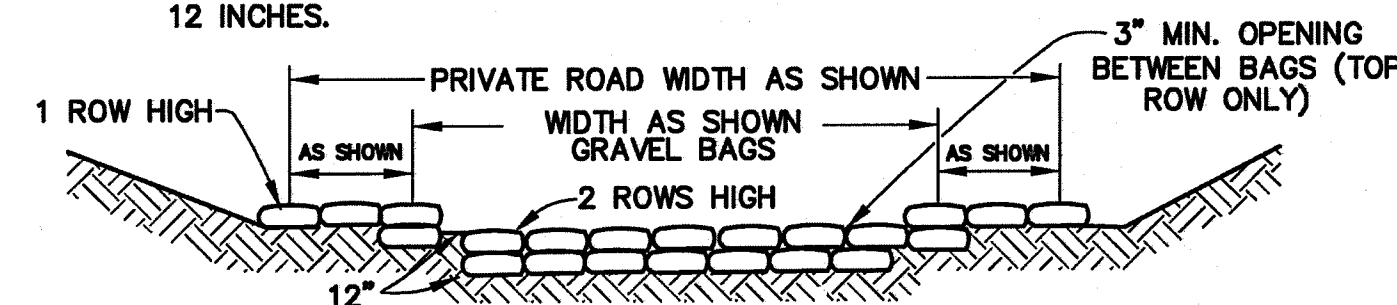
NO.	DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET 4	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	5 SHEETS
GRADING PLAN FOR: VIRISSIMO PROPERTY		
CALIFORNIA COORDINATE INDEX: 322-1713		
APPROVED: RAMIN ABIDI COUNTY ENGINEER	ENGINEER OF WORK: MATTHEW J. MILLER R.C.E. 67144 EXP: 9/30/16	7/13/15
BY: _____	DATE: _____	GRADING PERMIT NO: PDS2014-LDGRMJ-00017

EROSION CONTROL DETAILS

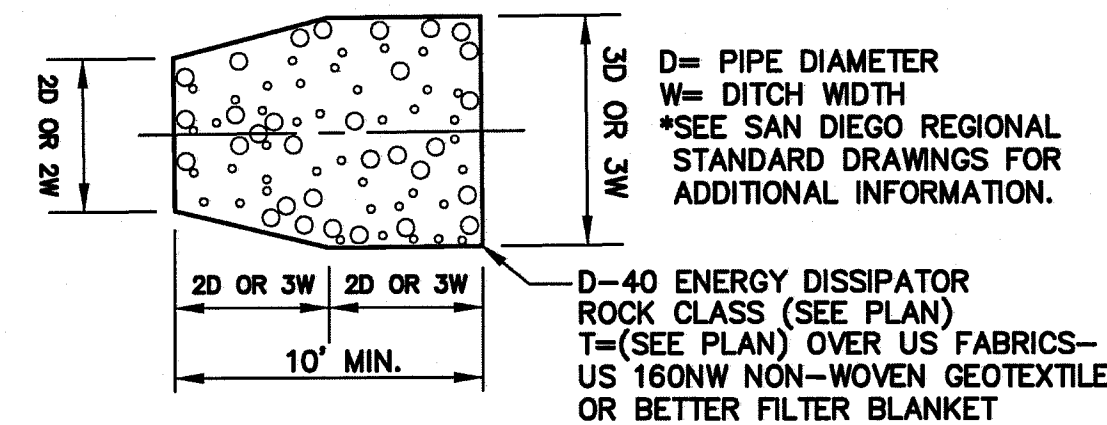
1. GRAVEL BAGS SHALL BE SPACED AT 25', 50', AND 100' INTERVALS MAXIMUM ALONG ALL PRIVATE DRIVEWAYS, ROADS, & CHANNELS WHERE SLOPES ARE >15%, 10%, AND 2% RESPECTIVELY.
2. GRAVEL BAGS SHALL BE SPACED AT 125' INTERVALS MAXIMUM WHERE GRADES ARE 1% OR LESS.
3. GRAVEL BAGS SHALL BE PLACED ON THE UPSTREAM SIDE OF ALL DRAINAGE INLETS TO MINIMIZE SILT DEPOSITS IN THE INLETS AND PIPES.
4. MINIMUM HEIGHT OF GRAVEL BAG CHECK DAMS SHALL BE 12 INCHES.



GRAVEL BAG PLACEMENT DETAIL FOR ROAD AND CHANNEL EXCAVATION

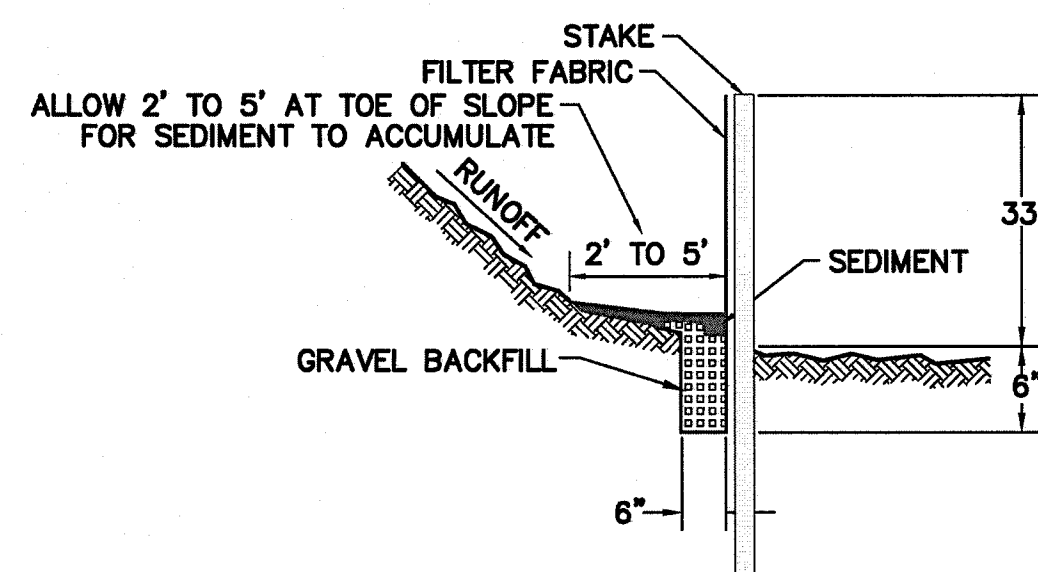
NO SCALE

NOTE: GRAVEL BAGS SHALL BE PLACED AS NEEDED FOR PROPER EROSION CONTROL.



ROCK RIP RAP ENERGY DISSIPATOR

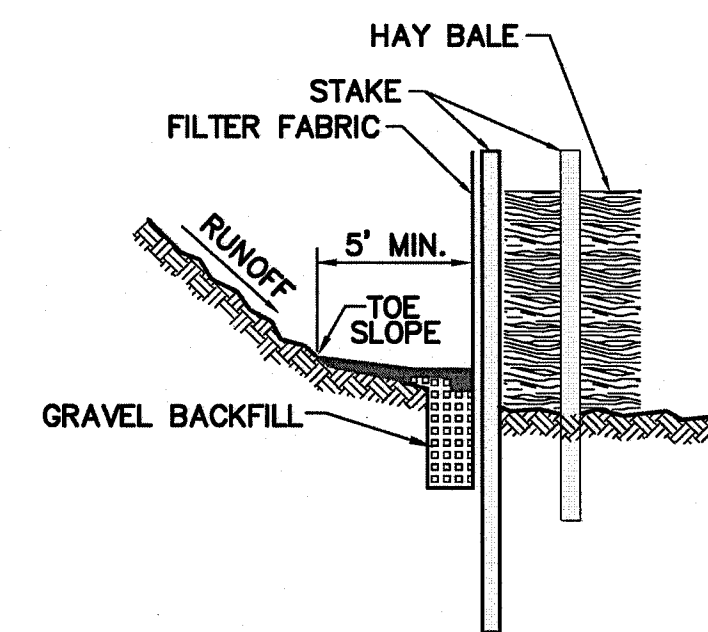
(R.S.D. D-40)
N.T.S.



KEY IN FILTER FABRIC A MINIMUM OF 6" BELOW THE GROUND SURFACE AND 6" ACROSS, THEN BACKFILL WITH DIRT OR GRAVEL.

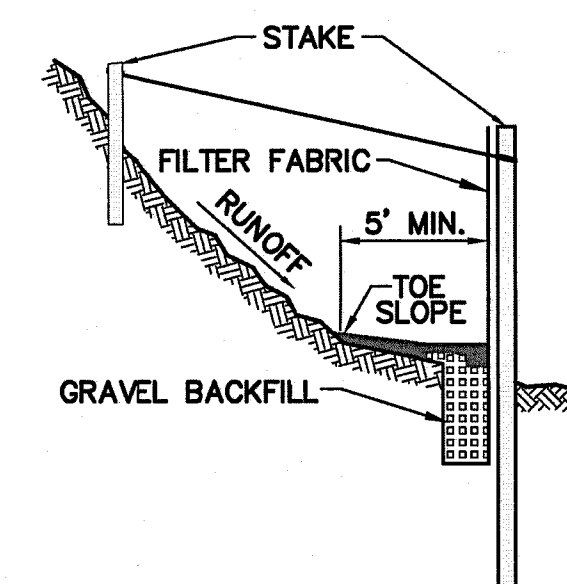
RECOMMENDED INSTALLATION OF SILT FENCE SC-1

N.T.S.



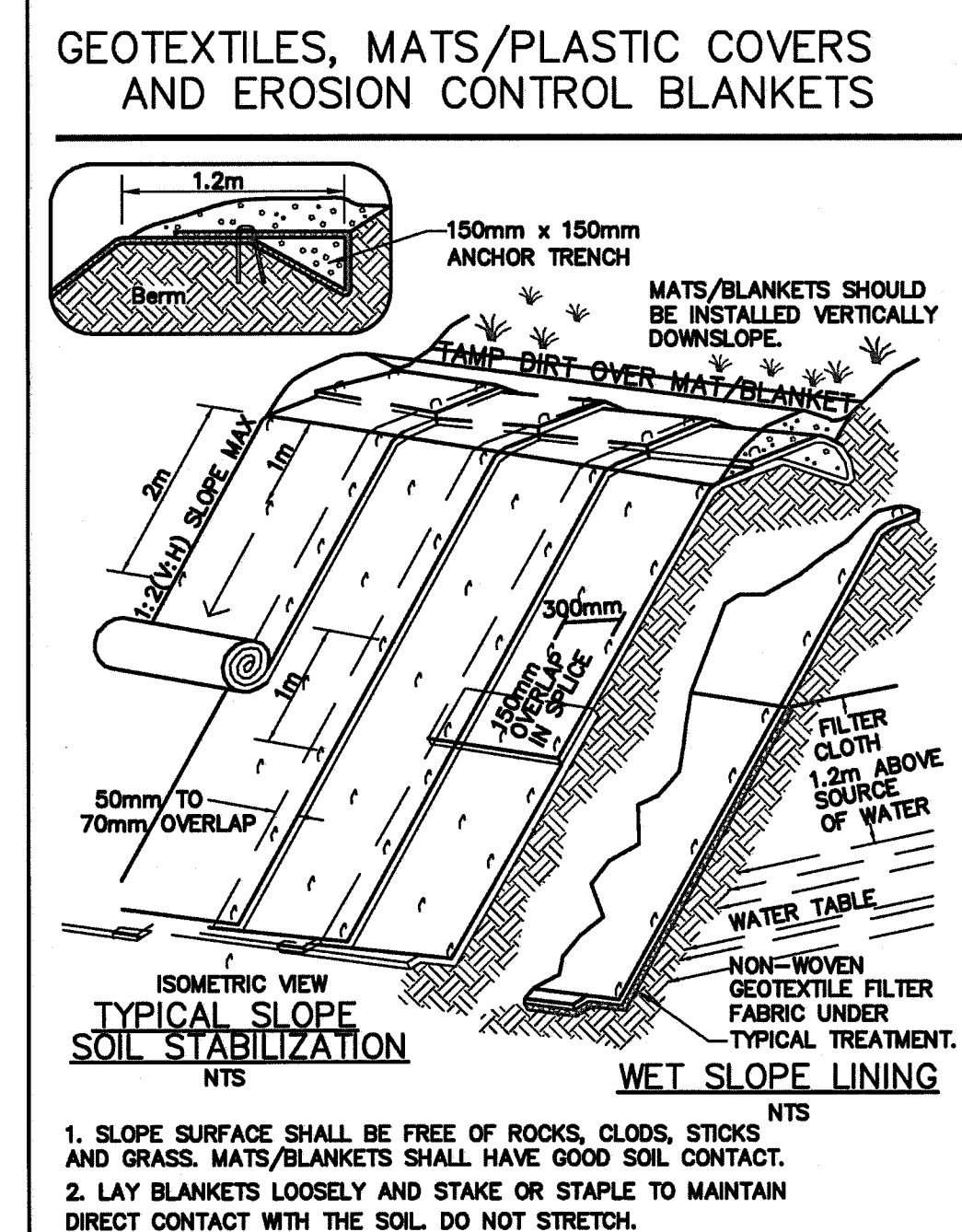
STRENGTHENING

N.T.S.



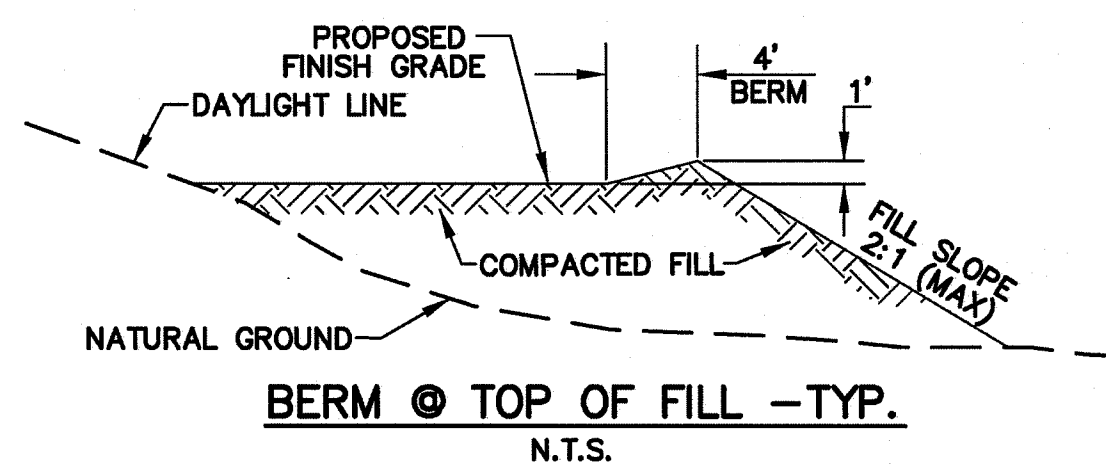
ANCHORING

N.T.S.



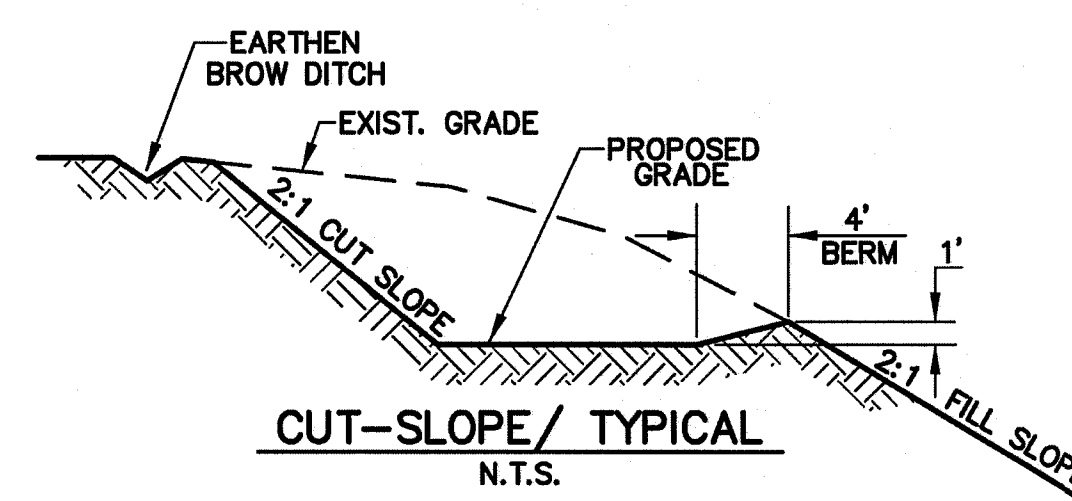
GEOTEXTILES AND MATS (SS-7)

GEOTEXTILES AND MATS CAN BE USED FOR TEMPORARY OR PERMANENT SOIL STABILIZATION, AND ARE ESPECIALLY EFFECTIVE ON STEEP SLOPES AND CHANNELS. GEOTEXTILES AND MATS ARE USED TO REDUCE EROSION FROM RAINFALL IMPACT, HOLD SOIL IN PLACE, AND ABSORB AND HOLD MOISTURE NEAR THE SOIL SURFACE. THEY SHOULD BE INSPECTED MONTHLY AND AFTER SIGNIFICANT RAINFALL.



BERM @ TOP OF FILL -TYP.
N.T.S.

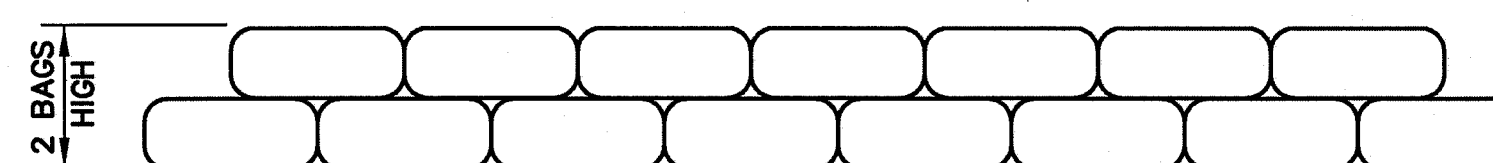
N.T.S.



CUT-SLOPE/ TYPICAL

N.T.S.

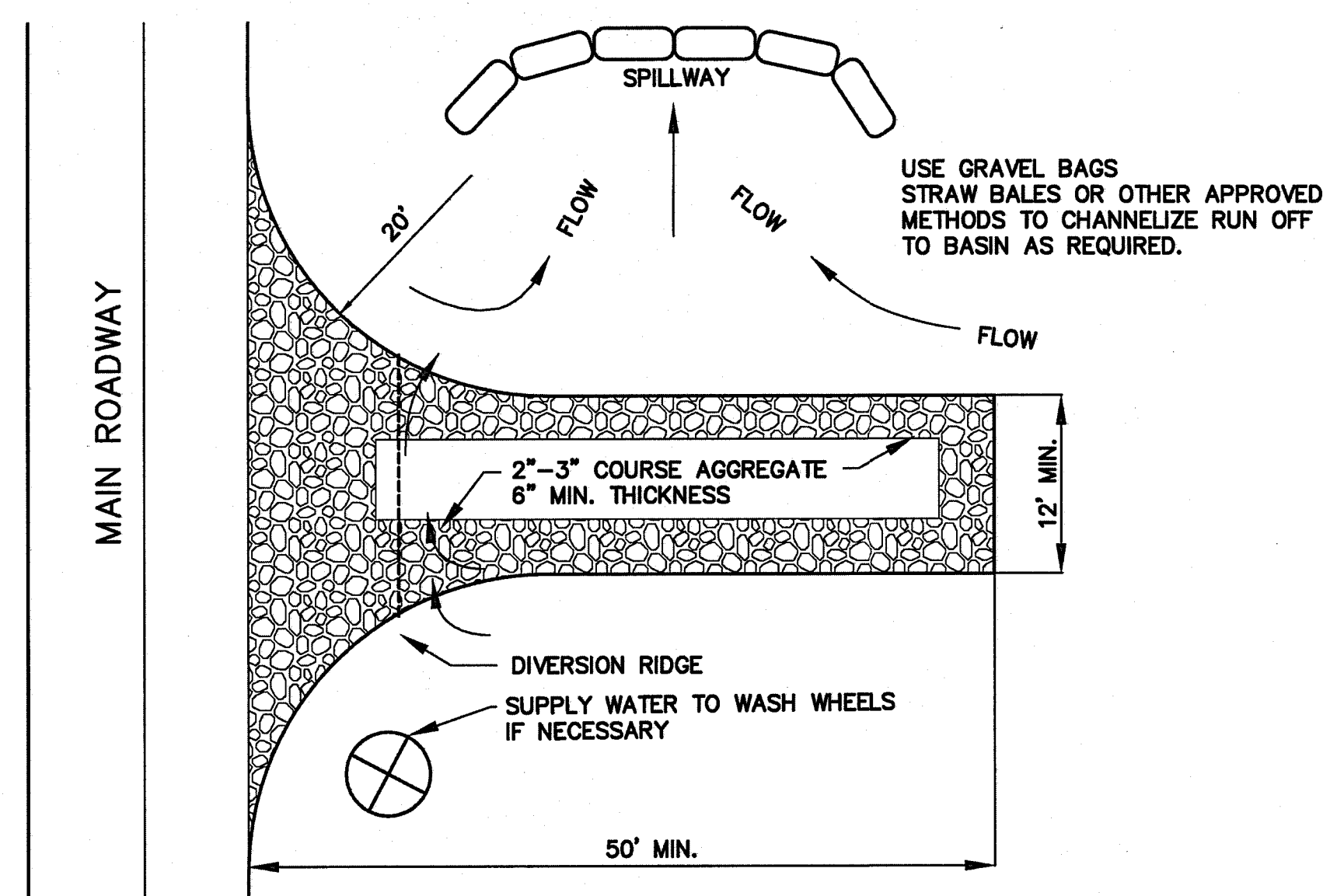
EARTH BERM & BROW DITCH DETAIL



ELEVATION VIEW

GENERAL GRAVEL BAG PLACEMENT (SC-6)

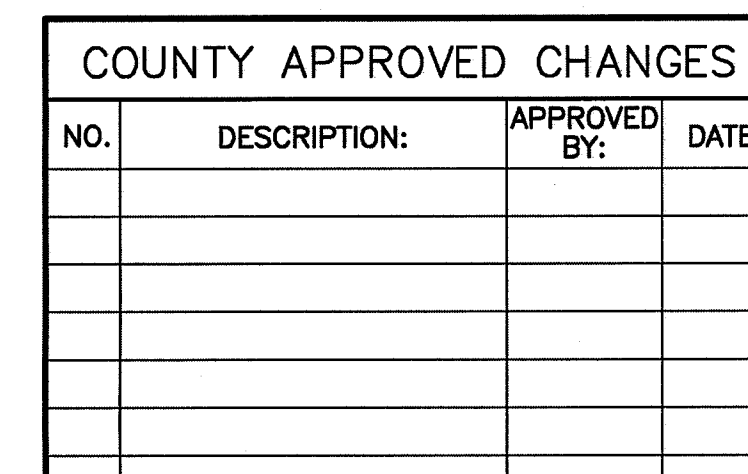
NO SCALE



STABILIZATION OF VEHICLE TRAFFIC AREAS. ALL AREAS OF SIGNIFICANT VEHICLE TRAFFIC (SITE ENTRANCES, ACCESS ROADS, PARKING LOTS, ETC.) SHOULD BE STABILIZED IMMEDIATELY AFTER GRADING TO PREVENT EROSION AND CONTROL DUST. SITE ENTRANCES AND EXITS ARE ESPECIALLY IMPORTANT. USE GRAVEL APPROACHES TO LIMIT TRACKING OF SEDIMENT OFFSITE.

STABILIZED CONSTRUCTION ENTRANCE (TC-1)

NO SCALE



PRIVATE CONTRACT		
SHEET 5	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	5 SHEETS
GRADING PLAN FOR: VIRISSIMO PROPERTY CALIFORNIA COORDINATE INDEX: 322-1713		
APPROVED: RAMIN ABIDI COUNTY ENGINEER	ENGINEER OF WORK: <i>MAK</i> MATTHEW J. MILLER R.C.E. 67144	7/13/15 EXP: 9/30/16
BY: DATE:	GRADING PERMIT NO: PDS2014-LDGRMJ-00017	



ERB & ASSOCIATES, LLC
CIVIL ENGINEERS & LAND SURVEYORS
33230 STONE DRIVE, STE. E, POWAY, CA. 92064
(858)748-2130 FAX (858)748-2133